

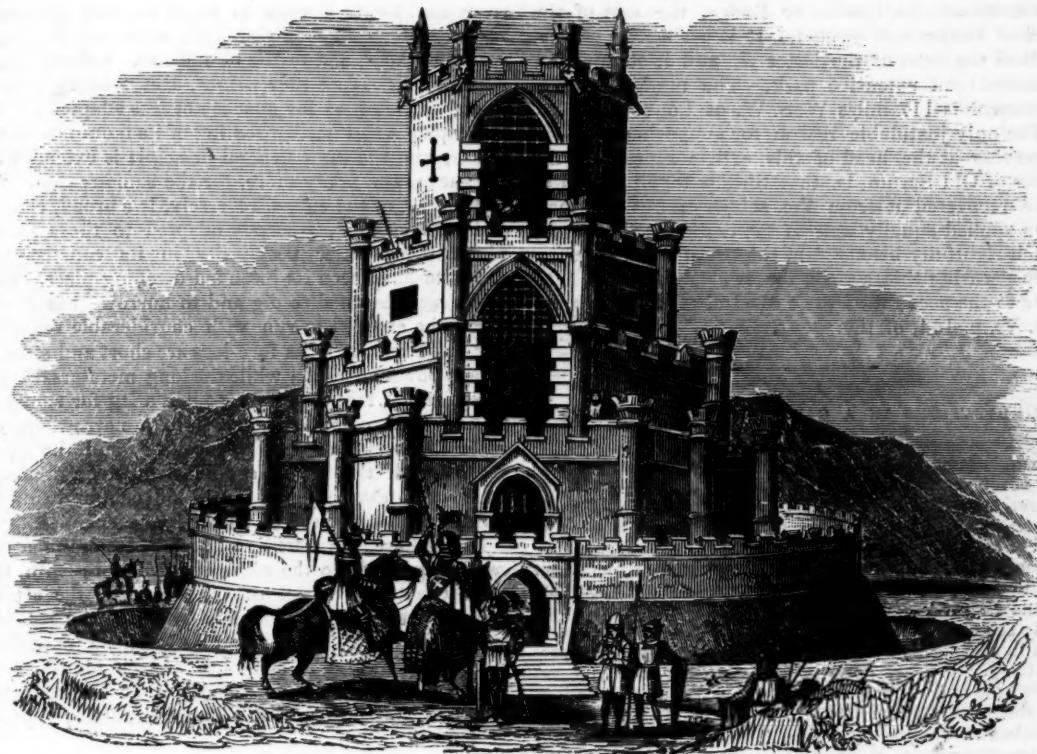
Saturday Magazine.

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CASTLE OF SHERBORNE, DORSETSHIRE.



CASTLE OF SHERBORNE, IN THE FOURTEENTH CENTURY.

In this work there have been given, at intervals, accounts of some of the oldest and most reputable castles of England, and we here resume the subject by offering to the reader's notice a few details respecting the CASTLE of Sherborne, which has been often confounded with that of Old Sarum. We left off describing the CITY of Old Sarum at p. 155; but first, we must refer the reader to the general description of Ancient Castles, given at Vol. III., p. 27, of this Magazine.

The castle, of which a view is given in the frontispiece, has been commonly considered to be that of Old Sarum, as it existed in the reign of King Stephen, at the beginning of the twelfth century. The view is derived from an old picture, which was most probably taken from the representation in brass on the ground of the morning chapel in the north aisle of the cathedral of Salisbury. Here, over the grave of Bishop Wyvil, is this castle, with the figure of a bishop in an arch over the portal, and a warrior standing at it, armed with a shield and a battle-axe.

Rabbit warrens existed near the place, as indicated by the rabbits near the castle. Round the edge of the stone, in old English characters, is a Latin inscription, of which the following is a translation, as far as it is legible:—

Here lies Robert Wyvil, who collected and preserved his flock as a vigilant pastor. Among many other benefits to VOL. XIV.

his church, he recovered the castle of Sherborne* from the violent and unjust occupation of the military (after it had been in their hands several years) like an undaunted champion, and procured the restitution of the forest of Bere to his church. He, on the 4th day of September, 1375, and in the forty-fifth year of his consecration, as it pleased the Most High, paid the debt of nature in the said castle.

Now, by referring to the article on Old Sarum, p. 153 of this volume, we see that the cathedral of the Hill-city had been removed before Bishop Wyvil's death, and that Old Sarum was rapidly decaying. Bishop Wyvil is, therefore, not likely to have remained at Old Sarum, and resided till his death in the castle, which place the clergy had deserted because of their dissensions with the military occupants of the castle; and besides this, the style of architecture shown above, does not belong to the flourishing era of Old Sarum, but is of a later date.

Sherborne was anciently part of the diocese of the Bishop of Salisbury; as also it has been again made in our own times. Sherborne is in Dorsetshire, and has near it the site of an old castle. In the year 705 it was made a bishop's see; but the see was translated in the reign of William the Conqueror to Old Sarum. The castle stood upon an eminence, half a mile from the town, in a suburb still called *Castleton*. It is supposed to have been first erected in Saxon times.

In the original Schirebonn.

but soon after the Conquest this castle was annexed to the bishopric of Salisbury. We hear nothing further of it until the times of the civil wars in King Charles's reign, when, after having stood out for a long time in favour of the royalists, it was at length taken, after a siege of sixteen days, by Cromwell and Fairfax. A great quantity of ammunition, provisions, plate, &c., was found here, and many distinguished prisoners were taken. The parliament soon after ordered the castle to be demolished, which was immediately done, and but few vestiges of it now exist. With a portion of the materials, the mansion now called Sherborne Castle, or Lodge, the seat of the Earl of Digby, was erected. It is a singular edifice, built in the form of the letter H, and it stands in a beautiful and extensive park. The market-town of Sherborne is 117 miles W. S. W. of London.

The only justifiable reason for supposing that the engraving at the head of this article represents the tower of Old Sarum, is, that Bishop Wyvil is said to have recovered it from the soldiery; but this may have applied equally well to the castle of Sherborne, which rightfully belonged to the see of Salisbury.

In perusing this article, the reader will do well to refer to the account of the cathedral of Salisbury, at Vol. V., p. 154, of this work.

MEDITATIONS IN A GARDEN, UPON A SPRING MORNING.

THERE is something in the opening of the dawn at this season of the year, that enlivens the mind with a sort of cheerful seriousness of its existence. For my own part, at least, the rising of the sun has the same effect upon me, as it is said to have had on the celebrated statue of Memnon; and I never observe that glorious luminary breaking out upon me, that I do not find myself harmonized for the whole day. While I was enjoying the freshness and tranquillity of this early season, and considering the many reasons I had to join in offering up that morning incense, which the poet (Milton) represents as particularly arising at this hour, "from the earth's great altar," I could not but esteem it as a principal blessing, that I was entering upon a new day with health and spirits. To awake with recruited vigour for the transactions of life, is a mercy so generally dispensed that it passes, like the ordinary bounties of Providence, without making its due impression. Yet, were one never to rise under these happy circumstances, without reflecting what numbers there are, who, (to use the language of the most pathetic authors,) when they said, "my bed shall comfort me, my couch shall ease my complaint," were, like him, "full of tossings to and fro, unto the dawning of the day;" or "seared with dreams and terrified through visions;" were one to consider, I say, how many pass their nights in all the horrors of a disturbed imagination, or all the wakefulness of real pains, one could not find one's self exempt from such uneasy slumbers, or such terrible vigils, without double satisfaction and gratitude. There is nothing, indeed, contributes more to render a man contented with that draught of life which is poured out to himself, than thus to reflect on those more bitter ingredients, which are sometimes mingled in the cup of others.—MELMOTH.

I love to rise ere gleams the lovely light,
Winter's pale dawn; and as warm fires illumine
And cheerful tapers shine around the room,
Through misty windows bend my musing sight,
Where, round the dusky lawn, the mansions white,
With shutters closed, peer faintly through the gloom,
That slow recedes; while yon gay spires assume,
Rising from their dark pile, an added height,
By indistinctness given, then to decree
The grateful thoughts to God, e'er they unfold
To friendship or the muse, or seek with glee
Wisdom's rich page! Oh hours more worth than gold,
By whose bless'd use we lengthen life, and, free
From drear decays of age, outlive the old.

MISS SEWARD.

ON THE FEET OF ANIMALS.

THERE is no obvious reason, at first sight, for the great difference between the foot of a horse and an ox; but when we examine their separate destinations, the perfect adaptation of each construction becomes apparent. The horse was intended for hard ground and rapid movements; and the hoof is constructed accordingly, answering its end, perfectly in the state of nature, and serving that purpose under domestication also, better than is generally believed. The place of the ox was to be in meadow lands, and in river banks—its destiny to tread on soft grounds; and equally is this provided for in the divided and spreading hoof, and in the dew claws. A horse sinks, where an ox, of greater weight, can feed in safety. The sharp hoof of the goat is not less adapted for the rocky places and narrow footing of its mountain habitation; and the same general principle is extended to the sheep, and many more, for the same reason.

The foot of the camel, reversely, is a broad, elastic, and soft cushion, perfectly adapted to those sands which every other peculiarity in its construction shows to have been its intended dwelling-place. The rabbit was destined to dig and to burrow; but it was also to be enabled to run with considerable velocity. For these purposes, its fore-legs are short and strong, with a powerful hand; while the long metatarsal bone is rendered a foot to rest on, as it is a leg for running. It can thus compress itself into a narrow space; while the length of the lever behind, and the great flexibility of the spine, enable it to take a much longer step than its size would indicate, and thus to contest with the speed of its far larger enemies.

In the hare, the intention to afford concealment by crouching, leads to the same construction, with the same effect; as in all the quadrupeds, the art of running, as far as force is concerned, depends solely on the hind legs; the others forming little more than a resting-place. The structure of the hind-foot in the kangaroo, and its congeners, is an extension of the same contrivance, with a somewhat different practical result.

Where digging without running was required, we find the singularly beautiful hand of the mole. The legs are all extremely short; because longer ones would have been inconvenient, as well as useless; but there is a peculiarly shaped humerus, with a flat and long carpal bone, which, while the hand is enlarged in breadth, allows the palm to be turned outwards.

It is an unexpected extension of the mechanism of the mole's hand, to find it adopted in so very different a department of creation as it is in its application to the mole cricket; yet under a variation which renders it a much more complex machine, well deserving examination.

The contrivance in the foot of a cat is oftener seen than remarked: the wants of the animal demanded a hand to seize, like the eagle; and this was to be combined with a foot for walking. Superficially viewed, the foot of the cat and dog are similar, and both walk on the ends of their toes. But though the dog's foot had been more flexible than it is, the wearing down of the claws by walking, would have prevented it from securing an object. To protect those, in the other animal, the last joint of each toe is reversed, when the foot is at rest or used for walking; being brought forward with its long claw, when used as a hand for seizing, and returned to its place, by an elastic ligament. In the lion, the same object is effected, but in a different manner, by means of a lateral motion, which, like the peculiar form of the last phalanx in this tribe, does not well admit of

description. Here too, as in all animals of similar strong claws, we find a peculiar contrivance for fixing these organs firmly in their sockets; a projection from it entering within the claw, while that is embraced externally in the usual manner.

In the cat also, ordained to prey by surprise on animals of very quick hearing and rapid movements, the sole of the foot is peculiarly soft; whence, united to the extraordinary flexibility of the whole body, that inaudible, stealing step, so well known; while in the marten, the same object is attained by covering it with hair.

The rat and the mouse can walk, without difficulty, on surfaces not horizontal, by means of the sharpness of their claws, united to their great strength and small weight. The walrus, equally ponderous and inactive, is compelled to clamber over inclined and smooth rocks, in quitting the sea; and this object is attained by constructing the sole of the foot in such a manner that it can produce a vacuum with the surface. But the interest attached to this contrivance is increased, by observing how it is varied in different animals, under the general principle. In the walrus, where the toes must have existed, the muscles enable them to form a vacuum, as it can be imperfectly done in the human hand: in the foot of the gekko, each toe has transverse cavities, opening by slits below, which can be rendered vacuums by muscular action; but in the fly, which can thus walk on glass, against gravity, there are cushions, conforming to the general structure of insects, producing the same effect; as in the *Bufo calamita* it is attained by means of tubercles, and, in different lizards, by cushions or scales.

The feet of birds offer a more complete general view of a regular system of variations applied to one principle of construction, and every one of these distinctly adapted to the particular destination or desire of the animals.

If the most general purpose is that of walking on ordinary ground, so is the basis of this contrivance familiar in the domestic fowl, and in many other birds. But a considerable change is made, when it becomes necessary to climb trees, as in the woodpecker, and more. In these cases, two of the claws, instead of one, are directed backwards, and thus a support in this difficult position is obtained; while the foot of the parrot thus becomes a hand also. And the power of turning the outer toe backward or forward appears intended to give equal facility in roosting and in seizing; while we see the utility of this double power very strikingly in the owl. The talons of the falcon tribe are rendered hands, by furnishing the toes with long and curved claws. In the swimming birds, these are so connected by the web, that they become paddles, and thus are enabled to perform a double office. And in this case there is an evident intention to save muscular power; since the simple flexion of the heel joint is the only exertion required, the paddle shutting and opening by the mere pressure of the water. In the semipalmated birds, there is an interesting variation of this subsidiary contrivance. It is a sufficient paddle in the coot and the water-hen, while it also assists them in walking on soft bogs, and is not interfered with by asperities, as the entire webbed foot might be.

The length of leg, and the barrenness above the hock joint, in the wading birds, is a variation for the sake of those which do not require to swim, or could not, because their prey lies in shallow waters. If the heron is a familiar example, I must also point out that serrature in the claws, which enables it to grasp its slippery and active prey. It is a contrast to the bow-legged waders to find the ptarmigan feathered,

even over the feet; while the utility is equally seen in the habitation which it has been ordered to choose for itself among the snow. It is not a contrivance, but a peculiar application, to find that the sea-birds which lay without a nest, on smooth rocks, use the foot as a hand, to retain their single egg, in rising, lest their long wings should sweep it into the sea.

In the lobster and crab, considering these as insects, the hands, which serve as feet also, are well known. He who should examine the former, would decide that the two were meant for different uses; nor would he easily substitute a more efficacious piece of mechanism for that one which is used for cracking shell fish, as the other is designed to tear flesh. Smaller and finer hands or pincers are allotted to other kinds, as they often also are found in many of the feet, though amid the species of this extensive tribe we do not often conjecture the uses. And in some of them, a pair of feet, or more, are flattened, so as to resemble lancets; thus serving the purpose of swimming fins, as well as of feet for walking beneath the sea.

In the proper insects, the purposes served by the feet are very multifarious, and often exceedingly particular. Among these are, walking on a great variety of substances and surfaces, often under the more appropriate terms of climbing and jumping; such as land, under all its forms; above the water and beneath it; water itself; smooth or polished planes of many kinds; leaves of all sorts and in all positions, at rest or in motion; fibres or hairs, which must be embraced by the foot; and even their own spun webs. Thus also are they hands for seizing prey, in many different ways, for spinning, for digging, or for building, plastering, and more in those which execute peculiar works. In all these cases, the constructions are equally various and perfect for their uses: the adaptations conformable to the destinations. As a few examples I may point out the brushes on the feet of flies, where the intention is decidedly marked, by their limitation to those which can be used as hands; the comb-shaped feet of the spider, intended for separating the threads in spinning; those of the louse, designed for clasping a single hair; and the not very dissimilar one of the grasshopper, applied to the very different purpose of picking up ants as it walks among them, while placing them in its mouth at every step, without any apparent effort, or even intention. Looking at the great length of the legs, in the well-known fly which receives its common name from this circumstance, it would seem impossible that it should make its way among the long grass which it inhabits: yet that construction has been adopted for this very purpose, with a peculiar additional variation, departing also from a very general rule, through which the tarsus is formed of a great number of joints, enabling it to bend round and to embrace those narrow leaves.

* * * * *

A considerate and consistent design has been planned by One Mind, and executed by One Hand.

[Abridged from MACCULLOCH'S *Proofs and Illustrations of the Attributes of God.*]

As when the sun approaches towards the gates of the morning, he first opens a little eye of heaven and sends away the spirits of darkness; gives light to the cock, and calls up the lark to matins, and by and by gilds the fringes of a cloud, and peeps over the eastern hills, thrusting out his golden horns; and still, (while a man tells the story,) the sun gets up higher, till he shows a fair face and a full light.

—JEREMY TAYLOR.

EMIGRATION TO NEW SOUTH WALES.

To depart from home and form a separate dwelling, is a natural condition to which the members of every large family must at some time look forward; so upon an extended scale will it continually happen to members of a prosperous community. The industrious bee, whose habits serve as a model for human conduct, periodically sends out her offspring: when the hive is full, the young swarm issues forth, diverting its flight not wholly by inclination, but by the fitness of the place for future settlement—be that place near or distant.

In early times, emigration could only have been what the word now signifies in its simplest meaning, namely, the going forth to live beyond the limits of the place where the person emigrating had been accustomed to dwell,—a departure from a first home,—an exchange of dwelling. So that when the inhabitants of some village, or any portion of them, crossed, it may have been, the neighbouring hills, to possess themselves of another valley, they were as truly emigrants as those, who, in modern times, traverse the ocean to settle in a distant country. The word has no relation to any particular class of society, but as everywhere shepherds, ploughmen, gardeners, and other husbandmen, with carpenters, smiths, masons, and the like, outnumber the other classes, there is the same necessity for its being so amongst emigrants. Like the terms *soldier* or *sailor*, *emigrant* and *colonist* are general terms, that include men of every condition.

Thus *colonist*, in the language whence the word has been taken, signifies a tiller of the ground, as well as the inhabitant of an infant state. And no doubt founders of colonies have, for the most part, been of the class of tillers of the ground; although the term is now applied generally, as well to the entire society, as to the place of settlement itself. Persons who emigrate to colonies do not necessarily change their condition, any more than had they gone to dwell in some neighbouring village. The true object in emigrating is to obtain more of the necessities and conveniences of life, than are to be had at home, for the same amount of labour or of money. The becoming, therefore, and being considered an emigrant, neither adds to nor takes from the respectability of any one. If those who become emigrants have not quitted their country without due consideration; if they are exemplary in their conduct, and have besides some knowledge of the place of intended settlement, from the good report of friends who have gone before them, there is reasonable ground to expect that they will not only benefit themselves and their families, but be of more real service to their country than had they continued at home; particularly when the place of emigration is an off-branch of their own nation.

The position of such persons may be aptly illustrated by a tradition of an eastern family, which, after encountering many perils, arrived in an unknown land: for dangers seem wisely interposed, that none may lightly, or without due reason change the country of their birth; and few but such as are in some measure prepared to aid themselves. After landing on the nearest shore, this family made a wide circuit through a woodland district, abounding in pastures, and many things most pleasing to the eye; but, excepting a few wild berries, there was little wherewithal to live, for the birds and wild animals were few, or too wary to be entrapped. Worn out at length with fatigue, hunger, and disappointment, the strangers set themselves down, wholly dispirited. But unexpectedly, a female of benign aspect kindly greeting them, presented them with a crook, a hatchet, and a hoe, and as suddenly disappeared. Taking council together, they had wit to discover the hidden meaning, conveyed by the gift of these simple implements, the symbols of rural industry. They returned to their little bark, brought with them, on again landing, sheep, horses, and cattle, with grain, and all kinds of seed; and striving to deserve support from heaven by their own willing exertions, each began cheerfully to labour, according to his strength or ability.

Their sheep and cattle rapidly multiplied; the first rudely constructed huts gave place in time to commodious habitations; and the soil, which in the beginning seemed reluctant to afford them a bare subsistence, yielded at length corn, and wine, and oil, with a rich harvest of many fruits; or, as is more beautifully expressed in the Psalms,

"Food out of the earth, and wine that maketh glad the heart of man; and oil to make him a cheerful countenance, and bread to strengthen man's heart."

The flocks of sheep, (for truth no longer needs the dress of fable,) which covered the land, became famed in distant countries for their wool, and gave a positive value to wild pastures. With the prospect of turning them to account, there now repair to Australia individuals, whose wealth enables them to buy the unoccupied land. The funds from this source have rapidly increased; and by their aid, ships are sent by Government from different parts of the United Kingdom, in which a free passage is offered to useful labouring people and mechanics*.

In cases where colonial proprietors themselves have been enabled to superintend the outfit, emigrants are accommodated, as shown in the plan of a ship given in the annexed table. It will be seen that every family has a separate cabin; with a sleeping berth or berths. If there are in the family more than one child, a separate berth and bedding are provided; and when there are several children they have separate cabins. Single men, or boys of more than ten years of age, sleep in hammocks, in the open space between the cabins, which married men have also the means of doing†.

The bedding provided is of better description than persons of this class usually possess, and is intended not only for the voyage, but to serve in their dwellings on shore. Each cabin has a ventilator, three and a half inches in diameter, to which a glass or bull's-eye is fitted, and is removable at pleasure, for the admission of fresh air. All the bedding and utensils are numbered according to the cabins, and a list is put up in each cabin of the several articles in it. The bedding is daily taken upon deck, where in bad weather it is covered up, as in ships of war.

The utensils are of a very substantial kind, because they are not to be replaced at sea. The space occupied by the emigrants is for their exclusive use, and no other persons are permitted to sleep therein. They are required to take no part in the ordinary duties of the ship, except to assist in washing decks, and are subject to no molestation in passing the line, or during any part of the voyage.

Their provisions are issued daily in proportionate quantities, and cooked for them. A printed scale is hung up in the cabin, that every one may see to how much he is entitled. Excepting in cases of sickness, or at the request of the surgeon, neither wine nor spirits are allowed; but of tea and sugar there is an ample allowance.

Materials are supplied for their occupation at sea. Bagging and twine for the men, and shirting for the women; and the better to stimulate them to industry, the same prices are given for work as on shore. The value may be taken out in linen, or in little additional comforts, as coffee, flour, raisins. Thus many families, who embark with a scanty supply, are enabled to provide themselves with an excellent stock of apparel; for out of every seven shirts made up by the women, they may retain two; and out of every four shifts, have one. The children also, by imitating the industry of their parents, in making up shirting or coloured prints, are enabled to clothe themselves.

Divine service is performed every Sunday, and books are provided for their mental, moral, and religious instruction; as well as a school for the children during the voyage. All assemble daily for family prayer, a book of which is given to each person.

The voyage from London to Sydney generally occupies from fifteen to eighteen weeks, during which time the vessel traverses a space of about sixteen thousand miles. Serious as such an undertaking may seem, yet the excellence of the vessels, and the abundant store of provisions and water with which they are provided, compensate in some respect for the length of the way. Contrasted with the passage to America, its advantages are greatly in favour of the emigrant to Australia, because, from the comparative shortness of the voyage, there is, in the ordinary ships which sail for America, much less of preparation for the comfort and accommodation of the emigrants. By reason, therefore, of the superior preparations for so long a voyage as that to New Holland, which are completed before leaving England, and the fineness of the weather usually experienced by the way, the whole passage to Sydney is generally performed with ease and comfort, and, in almost every case, with perfect safety.

* By the unremitting attention of the officer entrusted with this important department, the conveying emigrants to Sydney is gradually becoming a well-regulated system, worthy at once of the energies and benevolence of Englishmen.

† It would, no doubt, contribute to the maintenance of good order, if none but children were permitted to sleep in the open space between the cabins.

PLAN of Steerage-Cabins on board the ROYAL GEORGE,—G. RICHARDS, Master,—for a Party of Agricultural Labourers going to Sydney, October 31, 1838.

Sliding Doors.

○ Removable Bulls' Eyes, or Ventilators, in the Deck, three inches in diameter.

BEDDING AND UTENSILS IN EACH CABIN.

<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>			
1 Mattress for every Berth or Sleeping-place	11 6	2 Mess-dishes each Cabin	each 1 2	1 Large Sponge	2 0
1 Pair of Blankets	12 6	1 Round Tin Pan each Person	0 7	1 Washing-tub	4 0
1 Counterpane	4 1	1 Porringer Ditto	0 4	1 Hand Ditto	2 0
1 Canvas Valise	3 0	1 Tea-canister and Sugar-box each Family	1 4	1 Water-keg	4 9
1 Green-painted Slop-pail and Cover	3 0	1 Large and small Spoon each Person	0 5	1 Bread-bag	0 9
Hinged Pots according to the size of the Family	each from 1s. 6d. to 2 5	1 Knife and Fork	1 0	3lbs. of Marine Soap and 3lbs. of Yellow Ditto, each Family	4 1 <i>½</i>

Each article bearing the Number of the Cabin.—Each Family's Name over the Door.—Inventory in each Cabin of the Furniture within it.
Padlocks, asps, and iron clothes-pins to each Cabin.

SCALE OF PROVISIONS

Children, 2 to 4 Years of Age, One-fourth.—Ditto, 4 to 8 Ditto, One-half.—Ditto, 8 to 14 Ditto, Two-thirds.

Bread	14 lbs.	Pork	3½ lbs.	Peas	1½ pints.	Sugar	2 lbs.	Suet	4 ounces.	Oatmeal	4 pints.
Beef	51 lbs.	Flour	4 lbs.	Tea	7 ounces.	Rice	1 lb.	Raisins	1 lb.	Water	42 quarts.

For Euclidean Days : to be issued in daily proportionate quantities, according to a printed Scale, hung up in a conspicuous place.

When circumstances admit of fresh Beef being issued, each person above Fourteen Years of Age receives 10 ounces of Beef, 1 lb. of Potatoes, and 1 lb. of Biscuit, with Beans and Raisins for a Pudding or Sundae. Tea and Sugar according to the Scale.

The following is a list of the best and healthiest and proportionate mixtures for Children under Fourteen Years of Age.

Upon the arrival of the party at Sydney, the principal town and port in the colony, they go to an estate, about forty miles distant, and communicating with it by a good road.

The district, like many others of the colony, is, to a great extent, under cultivation; abounds in all the necessities of life; and is enlivened by sheep, horses, and cattle depasturing over it. The emigrant families form, within themselves, the nucleus of a rural community, and are independent of other persons for society.

There are two churches in adjoining parishes, each about five miles distant, and both of the established English Church. Once in the month the clergyman of one of them performs divine service on the estate itself, where an additional church is building. Indeed, active measures are in progress throughout the colony, to provide schools and places of worship.

The heads of each family have a cottage, with a plot of garden ground, rent free; the milk of a cow, or permission to depasture a cow, upon the adjoining land; to keep pigs and poultry sufficient for their own use; and receive from fifteen to twenty pounds per annum wages, with an allowance of seven pounds of meat, and eleven pounds of flour weekly. Each married woman receives half this quantity of provisions for the first six months.

Upon first arriving, these families are placed in cottages, built of the bark of the Eucalyptus, (or gum tree); the floors being of brick, the walls whitened within, and the rooms proportioned in number to the size of the families. Such temporary habitations are usual in the colony, and are very comfortable for two or three years. Eleven of these families, by the last accounts, were living in permanent cottages, which are gradually being built for the entire number. These last are either of brick or rammed earth, (Pisé,) and the value of each pair of cottages, with garden-fences and appurtenances, is about a hundred and ten pounds. Each cottage contains a kitchen, thirteen feet square, bed room, nine feet by thirteen, one or two lean-to rooms, seven feet by eight, and a small pantry or closet. They are neatly plastered within, and glazed, and in front have a veranda.

A school is formed for the children, and occupation found them upon the estate, according to their age and capacity. These families are, however, at liberty to seek other employment, on making good the difference between such bounty as may be received from government and the cost of their outfit and passage. The difference in no case exceeds fifteen pounds, although the various articles in the list of equipments become the property of the emigrant on going on board the ship. Out of the fifteen pounds, five pounds are remitted for every year's service, it being found that conditions binding the servant to any one employer, frequently create the restlessness and disposition to change which they are intended to counteract.

At the termination of five years, if they wish it, they are to be settled as tenants upon fertile land, within a short distance of some market; and are to pay rent either in produce or labour.

Equally advantageous terms are to be obtained generally throughout the colony of New South Wales. The vessels, on board which these parties embark, are of about five hundred tons burden, with a general cargo, and other passengers, having a surgeon and an experienced commander.

There have been sent to the same estate, and upon the same plan; fourteen families from the county of Dorset, embarked in November 1836; also six families of Germans, from the vineyards of Markobrunner, on the Rhine, consisting of six married men with their wives, and fifteen children; being twenty-seven souls. In the month of May, 1838, twelve other families from Dorsetshire, being forty-two souls; and in the following November, a fourth party, consisting of ninety-two Kent and Dorsetshire people, making in the four parties, two hundred and eighteen souls. Of the last party, accounts have yet been received from the Cape of Good Hope only, when there had been an addition of four infants to the number; but all the others had safely arrived at Sydney, and happily without any accident*.

The emigrant on arriving there will readily find an occupation and a dwelling, amongst numerous colonial proprietors, who wish to afford the means of settlement upon their estates, to frugal and industrious families, whose early habits of industry enable them to labour with ease and

* In too many cases the decks of private ships are so encumbered with casks and sheep pens, that it is difficult to obtain space and opportunity for the children to play or to carry on the school provided for them.

cheerfulness, and who strive besides to uphold the virtuous habits and religious observances of the mother country.

They will find also in this colony, good high roads, frequented by coaches, carriages, and wagons, by sleek and lusty teams of horses or of oxen, and by men whose happy mien gives evidence of their easy condition. There poverty, in the sense in which in parts of the United Kingdom it is too bitterly felt and understood, is wholly unknown. Every husbandman is gladdened by abundance of all the necessities and not a few of the conveniences of life. For so excellent is its climate that his hand is rarely stayed by frost, or snow, or the rigours of winter. Its productive soil yields every grain and vegetable useful to man, with fruit in the highest perfection. Apples and oranges, pears and lemons, plums and citrons, cherries and melons, apricots and figs, with grapes and peaches, are seen in the same garden. Green peas are gathered in Winter and Summer; and the potatoe produces two crops in the year.

Occasionally, however, this course of prosperity is severely checked by seasons of extreme drought; yet with all these drawbacks, the following table showing the progressive increase of its revenue and staple exports will show how rapid have been the stages of its advancement.

REVENUE.

1824 ... £49,191	1831 ... £117,447
1825 ... 65,733	1832 ... 122,163
1826 ... 69,478	1833 ... 138,469
1827 ... 75,495	1834 ... 161,960
1828 ... 91,306	1835 ... 184,268
1829 ... 99,475	1836 ... 198,129
1830 ... 102,743	1837 ... 226,900

EXPORTS OF WOOL.

1824 ... 275,560 lbs.	1831 ... 1,134,134 lbs.
1825 ... 411,600	1832 ... 1,425,657
1826 ... 552,960	1833 ... 1,969,668
1827 ... 320,683	1834 ... 2,225,823
1828 ... 967,814	1835 ... 2,688,440
1829 ... 913,322	1836 ... 3,008,022
1830 ... 973,330	1837 ... 4,606,915

So much for the advantages of this colony as a field of emigration, for which all the other settlements in Australia will in time possess similar inducements.

Many moral evils have arisen from New South Wales having been established as a penal settlement; but it is due to the mass of unfortunate men who have been sent thither for their offences to state, that many have taken to good and industrious courses, and that not a few of their children have gained that influence in the colony which character, education, and property, will always ensure. As a body they have made some atonement to their country for past misconduct, by having prepared the way for another class of persons. The access to this colony is now so easy to men of every condition, and the advantages it holds out so many, that the time cannot be distant when its population will possess the average good character of the people of other countries. Within a few years, indeed, since the commencement of free emigration to it, the general aspect of society is greatly changed, attributable in a great measure to the number of respectable persons arrived on its shores; bringing with them the moral restrictions and principles of their native land; thus infusing life through the body of the population. The number of ministers who have also arrived, have tended in a remarkable manner to a change, which is converting the land to a land of the living. Another cause is the establishment of schools for youth; until within a few years a great proportion of the inhabitants were wholly given up to matters connected with their daily existence; but at present there is the same devotion to the cultivation of religious principles and moral duties that is witnessed in other countries.

The great object in drawing attention to these facts is, to point out the resources in store for the exertions of honest labour; that men of benevolent minds may consider how these attempts at systematic emigration may be improved; and whether, if conducted upon sound principles, they may not be the means of opening still wider to the poor a channel, by which, in seasons of distress, they may pass from a state of hard and necessitous servitude, to one of comfort, and eventually of independence.

It may be interesting to political economists to know, that a population of 10,000 persons, natives of Great Britain, consume more British manufactures, than 50,000 persons, of any other race.

MATERIALS FOR THE TOILETTE.

No. IV.

A LOOKING-GLASS.—(Concluded.)

In our last article on this subject, we endeavoured to give a brief account of the optical principles on which a looking-glass acts, and of the philosophy of that familiar occupation, "looking at one's self in the glass." We will now proceed to describe the manufacture of the glass.

Whatever may be the varieties of glass, whether the coarse green glass of which wine bottles are made, the brilliant cut glass for table service, the glass of our windows, or that which forms the looking-glass of the toilette, they all resemble one another in being made of silex, or flint, and an alkali, either soda or potash. Silex and alkalies, when fused, or melted together, form the transparent substance which we call glass, and minor circumstances fix the various qualities of different kinds of glass.

We will suppose our dressing-glass to be made of plate glass, which is the best fitted for this purpose. The ingredients employed for the glass are sea-sand, soda, lime, nitre, and broken plate-glass. We have said that flint is one of the ingredients in glass; but it must be remembered that sea-sand is flint, ground or worn down to the size of small grains by the action of the sea. The best sand has been hitherto obtained from the port of Lynn, in Norfolk, and from Alum Bay, in the Isle of Wight; and sand has even been brought from New South Wales to England, on account of its excellence for the purposes of glass making.

The sand, soda, nitre, and broken glass, being chosen in certain proportions, are put into a melting pot, and exposed to a fierce heat. A very high and long continued temperature (about forty hours) is necessary for the complete melting and mixing of the ingredients, and also to enable a sort of scum, called *sandiver*, to rise to the surface, from which it is skimmed off. If the melting is properly performed, the whole mass becomes fluid, and perfectly colourless.

When perfectly melted, the glass is emptied, by means of a copper ladle, from the melting pot, into a large vessel, called a *cuvette*, which has been strongly heated before the glass is poured into it. The temperature to which the workmen are exposed in this process is scarcely conceivable to persons unacquainted with the details of manufactures: it is most intense.

When the cuvette is filled, it is left some hours in the furnace, in order that the air may be extricated and dissipated from it. When this is done, the cuvette is taken out of the furnace, and removed to the casting-table, and suspended over one end of the table, by means of a crane: the table is higher at one end than the other, and the cuvette is placed over the higher end. The cuvette is then tilted over, and the contents flow out upon the casting-table, running down from one end to the other. The edges or sides of the table have two raised ledges, to prevent the glass from flowing over; and, in order to render it perfectly flat in every direction, a metallic roller is passed over the surface of the melted glass, from end to end,—the roller being removed to a small height above the surface of the table by two raised ledges, one on each side. By these means the surface of the glass is rendered perfectly flat, and cools in that form.

During these processes the utmost silence is preserved in the manufactory. About twenty men are employed in the casting, and they move about with great caution,—keeping the doors and windows closed, and admitting no one but those actually engaged in

the casting. The object of this precaution is, to cause as little agitation in the air as possible, as the surface of the melted glass would be otherwise liable to be rippled or furrowed with a kind of waves.

The casting table is placed with one end near the mouth of an annealing oven; and as soon as the glass which is upon it has become solid, it is carefully slipped from the surface of the table to the floor of the annealing oven. The table is removed to its place, and another glass, or sheet of glass, is made in a similar manner, and then slipped into the oven. This process is repeated until the oven contains as many glasses as it is calculated to hold; after which the door is closed, and carefully stopped with clay or cement, to prevent the admission of air. In this oven they are kept for about a fortnight,—the temperature being allowed gradually to cool in the mean time; after which, the oven is opened, and the glasses taken out.

The sheets are then cut to a square form by means of a glazier's diamond, and prepared for polishing. In order to effect this last-mentioned process, the glass is laid on a table, and imbedded in plaster of Paris. Powdered flint is then sprinkled on the glass, and another large glass is moved steadily and regularly over the surface of the lower one, by means of machinery; so that the powdered sand which is between the two glasses, grinds one surface of each glass at the same time.

When a certain degree of grinding is thus effected by fine sand, a coating of coarse emery powder is substituted for it; and the grinding continued. This is again replaced by emery of a finer grain, as the process proceeds towards completion. The surface is now perfectly smooth, and free from irregularities; but it is dull, or deficient in gloss, and has therefore to undergo the process of *polishing*. For this purpose the plate of glass is firmly fixed upon a large table, and rubbed over for a long period with polishing instruments. These used to be moved by manual labour; but now the polishing, as well as the grinding, is done by steam machinery. The polishers are blocks of wood, covered with many folds of woollen cloth, having carded wool between the folds. On these blocks is sprinkled a substance called *colcothal*, which is an oxide of iron; and they are then worked over the surface of the glass, until it becomes perfectly polished, and as free as possible from blemishes of every description. When one side is polished in this manner, the glass is turned over, and the other side similarly treated.

By this means, then, is a large sheet of glass produced, and when we say that glasses twelve feet long by eight feet wide have been made, all in one piece, uniformly thick in every part, it may serve to convey some idea of the extreme care necessary in making. The high price which is charged for plate-glass does not arise so much from the costliness of the materials, or from the duty imposed upon it, as upon the great labour and risk bestowed upon its preparation. It often happens, that after a sheet of glass has been cast, annealed for a fortnight in the oven, ground, and polished, it is then discovered that there are blemishes in it which unfit it for sale, and it is thrown again into the melting-pot; for it is not until the glass is polished that its defects, as well as its beauties, are properly brought to view.

As breakages frequently occur with so brittle a substance as glass, the broken pieces are used for dressing glasses, and other purposes for which small pieces will suffice; and when these have been cut and squared to the proper proportion, they are handed over to the *silverer*, to give them that metallic coating

at the back, which fits them to act as mirrors or looking-glasses. In No. 403 of the *Saturday Magazine* (vol. xiii., p. 144) we gave an account of the mode of silvering looking glasses; we shall here therefore confine ourselves to a few remarks not contained in that article.

Mercury, being a fluid, would not adhere to glass without the co-operation of some other substance which will convert it into a solid. Such a substance is found in *tin-foil*, which is a very thin sheet of tin. When a drop of mercury is placed on this substance, the two rapidly combine, and produce an amalgam, which adheres pretty firmly to glass. By a due regard to this circumstance, and a perusal of the article to which we have just referred, a correct idea may be obtained of the principle by which a piece of transparent glass is transformed into a mirror or looking glass.

This remarkable substance mercury, with which one side of the glass is coated, is brought principally from two places; viz., from Idria, in the Austrian dominions, and from Almaden, in Spain. In vol. xiii., p. 135, of the *Saturday Magazine*, will be found an account of a visit to the quicksilver mines at Idria. That article will give a pretty general opinion of the mode in which the metal is obtained; and a few remarks thereon, as well as on the mines at Almaden, in Spain, will suffice for the present article.

At Idria, a horizontal passage, hewn in a solid rock, leads to a flight of 757 steps, cut in lime-stone rock, which lead down to a kind of aisle, which serves as a chapel for the miners. From this aisle various avenues lead in all directions to the working parts of the mine, from which from 15,000 to 18,000 cwt. of quicksilver are drawn annually.

At Almaden, in Spain, are quicksilver mines which have been known and worked for more than two thousand years. The galley slaves, who work in these mines, are occupied about three hours in each day in carrying out the ore which contains the quicksilver, in wheel-barrows. It is said that some of them pretend to be in convulsions, and others in fits, in order to excite the compassion of those who visit the mines. The inhabitants will work willingly double the time, and receive only half of what every slave costs the government. But all the labourers suffer dreadfully from the effects of the mercury. These victims of a deplorable mismanagement (the hired labourers) are described as being a laborious, simple-minded, virtuous race of beings, who are condemned to breathe an atmosphere impregnated, far and near, with the fumes of a volatile poison, which the resources of science might easily repress, with the effect of not only protecting the health of the population, but of vastly augmenting the revenues of the state.

This mine has been a source of great wealth to two brothers, named Mark and Christopher Fuggar. They undertook, rather more than two centuries ago, to work the mine, and to furnish the government with about half a million pounds weight of quicksilver every year, on condition of having all they could find beyond that quantity. They accumulated great riches, but after a time they found the mine less productive, and then ceased to work it; after which the government took the management of it into their own hands.

The quicksilver is not found in the metallic state, but in an ore called *cinnabar*, from which it is extracted by means of heat, and then exported in iron bottles.

Such, then, are the two principal materials in a looking-glass; viz., the glass itself, and the mercury

with which it is coated. Into the decorative parts of the dressing-glass we need not enter. These are of various forms, according to the purposes to which they are to be applied, whether to stand on the toilette table, or to be fixed up in any other way. In most instances the frames which hold them are made of mahogany, and the manufacture of them is a species of carpenter's, or rather cabinet-maker's work, which does not call for particular remark.

INFLUENCE OF RELIGION ON POETRY.

It has been remarked by an American writer, whose opinions are sometimes not less admirable than his eloquence, that religion surpasses every other principle in giving freedom and variety to the human intellect; recognising in every faculty the workmanship of God, and assigning to each its appropriate sphere of agency. Religion, he justly regards, as of all principles the most fruitful, multiform, and unlimited; possessing both the fertility and the munificence of nature. Genius rises in renewed radiance from the hallowing waters of Jordan.

"But," says Johnson, "the topics of devotion are few, and being few are universally known; but few as they are, they can be made no more, they can receive no grace from novelty of sentiment, and very little from novelty of expression." But the fountains of human feeling are not so soon exhausted; and every one who is familiar with the treasures of English theology, will be enabled to refute the assertion of Johnson. Our topics of devotion may be numbered by our necessities; and he, at least, who through various obstacles, and many sufferings, and gripping penury, had climbed into public notice by the energy of his character and the favour of Providence, ought surely to have reflected upon his own obligations, and to have acknowledged that his own topics of devotion could never be few. Gratitude for mercies, resignation under chastisement, supplication for forgiveness, are only variations of the same great duty. To the fancy of the poet, above all, nothing can be entirely exhausted of its beauty and life: by the rays of his own invention he draws forth new colours and lustre. Homer beheld the moonshine upon the shield of Achilles, and Sidney watched her going astray through the sky, and Virgil lighted up with her beams the face of the little Iulus in the tumultuous streets of Troy; and Landor beheld her reflection upon the wet sand of the sea-shore, like the shadow from "jasper column half upreared;" yet Wordsworth, in one of his latest poems, has presented her under a different aspect, and shown us that the springs of poetry can only be dried up with the heart of man.

The most beautiful refutation of Johnson's theory, however, has been afforded by the *Christian Year* of Mr. Keble, in which every day of the Christian's life furnishes a theme to the poet. The Hymns of Heber, if enlarged to the original outline, might have been united with a volume which breathes the ardour of Ken, without his conceits, and the meekness of Herbert, without his harshness; which illustrates the saying of Crashaw, that the wounded is the wounding heart, and makes the reader feel, because the author has felt before him.—WILLMOTT'S *Lives of Sacred Poets*.

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